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Title: MURINE 4-1 BB GENE (as amended)

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a) contacting nucleic acid obtained from a biological sample with a probe comprising at least a portion of the cDNA of claim 1 or the DNA of claim 22 so as to form binary complexes between the probe and the nucleic acid; and b) detecting or determining complex formation.

- 24. (New) The method of claim 23 wherein the sample is a lymphoid sample.
- 25. (New) The method of claim 23 wherein the sample is a non-lymphoid sample.
- 26. (New) The method of claim 23 wherein the sample is a physiological sample.
- 27. (New) The method of claim 23 wherein the sample is a tissue sample.
- 28. (New) An isolated and purified DNA molecule comprising a DNA sequence encoding a soluble 4-IBB polypeptide comprising the extracellular domain of the amino acid sequence shown in figures 2a and 2b.
- 29. (New) An isolated and purified DNA molecule comprising a DNA sequence encoding a soluble 4-1BB polypeptide comprising the extracellular domain of the amino acid sequence shown in figures 2a and 2b operably linked to a polypeptide that is not 4-1BB and which is located C-terminal to the soluble 4-1BB polypeptide.
- 30. (New) The DNA molecule of claim 28 or 29 which further comprises regulatory sequences suitable for expression of the DNA molecule in a host cell, which regulatory sequences are operably linked to the DNA molecule.